

REMARKS

In the Final Office Action, the Examiner took the following actions:

rejected claims 2, 4-9, 13-15, and 21-24 under 35 U.S.C. § 103(a) as being unpatentable over Mashino et al. (U.S. Publication No. 2002/0190375 A1, "Mashino") in view of Mikawa et al. (U.S. Publication No. 2002/0115226 A1, "Mikawa");

rejected claims 10-12 under 35 U.S.C. § 103(a) as being unpatentable over Mashino in view of Mikawa and Mayashita et al. (U.S. Publication No. 2001/0045605 A1, "Mayashita"); and

rejected claims 16-20 under 35 U.S.C. § 103(a) as being unpatentable over Mashino in view of Mikawa and Sakao (U.S. Patent No. 6,166,425).

Claims 1 and 3 are cancelled, and, thus claims 2 and 4-24 remain under examination.

Applicant respectfully submits that the finality of the Office Action is improper.

Applicant requests withdrawal of its finality, since the Examiner did not rebut or completely answer all of Applicant's previous arguments.

As stated in M.P.E.P. § 706.07, "where a single previous Office action contains a complete statement of a ground of rejection, the final rejection may refer to such a statement and also *should include a rebuttal of any arguments raised in the applicant's reply*" (emphasis added). Additionally, M.P.E.P. § 707.07(f) states: "[w]here the applicant traverses any rejection, *the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it*" (emphasis added). In the present case, the Examiner did not respond to all of Applicant's previous arguments.

In the Amendment filed February 21, 2006, Applicant pointed out to the Examiner that the proposed combinations Mashino and Mikawa failed to establish a *prima facie*

case of obviousness in the rejection of independent claims 2, 7, and 9. In particular, Applicant noted that Mashino and Mikawa, either alone or in combination, fail to teach or suggest at least the “through plug . . . ” recited in claim 2. February 21st Amendment at 11.

At pages 3-4 of the Final Office Action, the Examiner merely reiterated his rejection from pages 2-3 of the Office Action mailed October 20, 2005 to claims 2, 5, 8, 14, and 21. The Examiner conceded that “Mashino does not teach . . . a plurality of diffusion layer patterns,” at page 3 of the October 20th Office Action. Thus, Mashino cannot teach or suggest “a through plug formed to be partly surrounded by the diffusion layer patterns without being in contact with the insulation film and to pass through the diffusion layer patterns and the semiconductor substrate,” (emphasis added) as recited in claim 2.

Moreover, the Examiner does not assert that Mikawa teaches the claimed “through plug formed to be partly surrounded by the diffusion layer patterns without being in contact with the insulation film and to pass through the diffusion layer patterns and the semiconductor substrate.” In this regard, the Examiner is correct - Mikawa indeed fails to teach this element of claim 2, and thus cannot cure the deficiencies of Mashino.

Claim 2 is allowable over Mashino and Mikawa at least because the references, either alone or in combination, fail to teach or suggest the claimed “through plug . . . ” Moreover, independent claims 7 and 9 recite similar limitations to claim 1 and are also not obvious based on any reasonable combination of Mashino and Mikawa for reasons similar to those discussed above with respect to claim 2.

In addition to Mashino and Mikawa, the Examiner cited Mayashita and Sakao, respectively, in his rejections of claims 10-12 and 16-20. Claims 10-12 and 16-20 depend from their corresponding independent claim 2, 7, or 9, and thus incorporate each and every element recited in their corresponding independent claim.

Mayashita discloses a “semiconductor device of a MIS” structure (paragraph [0001]) and Sakao teaches a “semiconductor device including a MOS transistor and a resistance element with a large resistivity” (col. 1, lines 6-9). However, as noted by Applicant in the February 21st Amendment, neither Mayashita nor Sakao cure the deficiencies of Mashino and Mikawa with respect to the claimed “through plug,” nor does the Examiner assert such an element is disclosed by these references.

Accordingly, dependent claims 10-12 and 16-20 are allowable over the references at least due to their dependence from their corresponding independent claim 2, 7, or 9.

Applicant respectfully requests that the Examiner address all of Applicant’s arguments in the next Office Action if any of the claims still stand rejected. Applicant also requests that the Examiner withdraw the finality of the Office Action and issue a new, non-final Office Action which addresses all of Applicant’s arguments raised in the February 21st Amendment.

In view of the foregoing remarks, Applicant submits that this claimed invention is not rendered obvious based on the Examiner’s proposed combination of the prior art references cited against this application. Applicant respectfully requests the Examiner’s reexamination of the application. In addition, Applicant respectfully requests the Examiner reconsider and withdraw of the rejections of claims 2, 4-9, 13-15, and 21-24 under 35 U.S.C. § 103(a), the rejection of claims 10-12 under 35 U.S.C. § 103(a), and

the rejection of claims 16-20 under 35 U.S.C. § 103(a), and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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